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Peter V. Boesen

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MCKEE, VOORHEES & SEASE, P.L.C.

801 GRAND AVENUE

SUITE 3200

DES MOINES, IA 50309-2721

EXAMINER

DEAN, RAYMOND S

ART UNIT

PAPER NUMBER

2684

3

DATE MAILED: 10/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/042,863

Applicant(s)

BOESEN, PETER V.

Examiner

Raymond S Dean

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 - 50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 36 and 37 recite the limitation "wherein the voice transceiver" in the first line of each of said claims on page 17. There is insufficient antecedent basis for this limitation in these claims.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 25 – 27, 29, 38 – 41, 43, and 45 – 49 are rejected under 35 U.S.C. 102(e) as being anticipated by Ditzik (5,983,073).

Regarding Claim 25, Ditzik teaches a method of voice communication comprising: transceiving voice sound information between a hands-free voice communication unit and a computer over a short-range first communications channel

(Figure 3a, Figure 7, Column 8 lines 14 – 19, Column 8 lines 25 – 27, Column 8 lines 32 – 35, Column 8 lines 38 – 42, the earset is the hands-free voice communications unit, said earset can communicate with the wireless communication means of the computer over a short range link); transceiving voice sound information between the computer and a remote location over a second communications channel (Column 8 lines 43 – 45, the computer will relay voice information via the wireless communication means on a channel configured for transmitting to a wide area network such as a PCS network).

Regarding Claim 26, Ditzik teaches all of the claimed limitations recited in Claim 25. Ditzik further teaches processing voice sound information (Figure 3b, Figure 7, Column 8 lines 8 – 11, Column 8 lines 59 – 64, the computer can transmit and receive voice information via the wireless communication means thus there will be processing of said voice information).

Regarding Claim 27, Ditzik teaches all of the claimed limitations recited in Claim 25. Ditzik further teaches transducing voice sound information at the hands-free voice communication unit (Column 8 lines 22 – 27, Column 8 lines 38 – 42, the sound energy will be converted to electrical energy for transmission to the computer).

Regarding Claim 29, Ditzik teaches all of the claimed limitations recited in Claim 25. Ditzik further teaches identifying the hands-free voice communication unit (Column 8 lines 25 – 27, Column 8 lines 38 – 42, the computer must identify the earset before said computer can receive the voice information via the short-range link).

Regarding Claim 38, Ditzik teaches a removable card for voice communications over multiple channels comprising: a body adapted to be removeably inserted into a slot

(Column 4 lines 50 – 53, the PCMCIA card, which houses the wireless communication means, is removable); a short-range transceiver disposed within the body and adapted for two-way voice communications (Column 4 lines 50 – 53, Column 8 lines 38 – 42, the PCMCIA card, which houses the wireless communication means, which comprises the short – range transceiver and voice transceiver, is removable).

Regarding Claim 39, Ditzik teaches all of the claimed limitations recited in Claim 38. Ditzik further teaches a card bus connector attached to the body for interfacing the card to a computer (Column 4 lines 50 – 53, there will be a connector attached to the PC card such that said PC card can be inserted into a slot in the computer).

Regarding Claim 40, Ditzik teaches all of the claimed limitations recited in Claim 38. Ditzik further teaches a voice transceiver disposed within the body and adapted for communications over a voice communication network (Column 4 lines 50 – 53, Column 8 lines 8 – 11, Column 8 lines 59 – 64, the wireless communication means also comprises a transceiver for voice/data communications over a cellular network thus said wireless communication means will also comprise a voice transceiver for the transmission and reception of voice, the PCMCIA card houses said wireless communication means).

Regarding Claim 41, Ditzik teaches all of the claimed limitations recited in Claim 38. Ditzik further teaches a port for electrically connecting an external voice transceiver to the removable card (Column 4 lines 50 – 53, the PC card houses the wireless communication means, which comprises a voice transceiver, thus there will be a port for electrically connecting said voice transceiver to said PC card).

Regarding Claim 43, Ditzik teaches a method of providing secure access to a computer comprising: receiving an identifier from a hands-free voice communication unit at the computer over a short-range first communications channel (Figure 3a, Figure 7, Column 8 lines 25 – 27, Column 8 lines 32 – 35, Column 8 lines 38 – 42, the earset is the hands-free voice communications unit, in order for said earset to communicate with the computer via the short-range link said computer must identify said earset thus there will be an identifier such that said computer can identify said earset); granting access based on the identifier (Column 8 lines 25 – 27, Column 8 lines 32 – 35, Column 8 lines 38 – 42, in order for the earset to communicate with the computer via the short-range link said computer must identify said earset); transceiving voice sound information between the hands-free voice communication unit and the computer over the short-range first communications channel (Column 8 lines 25 – 27, Column 8 lines 32 – 35, Column 8 lines 38 – 42); and transceiving voice sound information between the computer and a remote location over a second communications channel (Column 8 lines 43 – 45, the computer will relay voice information via the wireless communication means on a channel configured for transmitting to a wide area network such as a PCS network).

Regarding Claim 45, Ditzik teaches all of the claimed limitations recited in Claim 43. Ditzik further teaches wherein the identifier is an identifier associated with the hands-free voice communications channel (Column 8 lines 25 – 27, Column 8 lines 32 – 35, Column 8 lines 38 – 42, in order for the earset to communicate with the computer

via the short-range link said computer must identify said earset thus there will be an identifier associated with said earset).

Regarding Claim 46, Ditzik teaches all of the claimed limitations recited in Claim 45. Ditzik further teaches wherein the identifier is a unique identifier (Column 8 lines 25 – 27, Column 8 lines 32 – 35, Column 8 lines 38 – 42, in order for the earset to communicate with the computer via the short-range link said computer must identify said earset thus there will be an identifier associated with said earset, said identifier will be unique to said earset such that said computer can identify said earset).

Regarding Claim 47, Ditzik teaches all of the claimed limitations recited in Claim 45. Ditzik further teaches wherein the identifier is an IP address (Column 8 lines 32 – 35, Column 8 lines 38 – 42, the earset can communicate with the computer via a short-range link such as a WLAN, the devices that communicate on the WLAN will have IP addresses).

Regarding Claim 48, Ditzik teaches all of the claimed limitations recited in Claim 43. Ditzik further teaches associating a first spatial position with the computer (Column 8 lines 32 – 35, Column 8 lines 38 – 42, the computer can be placed at a particular distance away from the earset, there will be a spatial position associated with said distance).

Regarding Claim 49, Ditzik teaches all of the claimed limitations recited in Claim 48. Ditzik further teaches associating a second spatial position of the voice communications unit based on the first spatial position associated with the computer (Column 8 lines 32 – 35, Column 8 lines 38 – 42, the earset can be at a plurality of

distances from the computer that will enable short-range communication with said computer, there will be spatial positions associated with each distance).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 3, 5, 10 – 24, 36, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ditzik (5,983,073) in view of Puthuff (6,112,103).

Regarding Claim 1, Ditzik teaches a system comprising: a computer having a housing (Figure 3a); a short-range transceiver operatively connected to the computer (Figure 3a, Figure 7, Column 8 lines 14 – 19, Column 8 lines 32 – 35, Column 8 lines 38 – 42, the earset can communicate with the wireless communication means of the computer over a short range thus said wireless communication means comprises a short range transceiver); a hands-free voice communications device unit in communication with the short-range transceiver (Figure 3a, Figure 7, Column 8 lines 25 – 27, Column 8 lines 32 – 35, Column 8 lines 38 – 42, the earset is the hands-free voice communications unit); the computer adapted to receive voice sound information from a transceiver; and the computer adapted to send voice sound information to the transceiver (Figure 3b, Figure 7, Column 8 lines 8 – 11, Column 8 lines 59 – 64, the



wireless communication means also comprises a transceiver for data/voice communications, said wireless communication means along with the microphone and speakers give the computer wireless phone capability).

Ditzik does not specifically teach a computer adapted to receive voice sound information from a short-range transceiver; and the computer adapted to send voice sound information to the short-range transceiver.

Puthuff teaches a computer adapted to receive voice sound information from a short-range transceiver and the computer adapted to send voice sound information to the short-range transceiver (Column 1 lines 51 – 54, Column 2 lines 53 – 57, Column 3 lines 34 – 43, the PCN is the short-range transceiver).

Ditzik and Puthuff both teach an earpiece that communicates bi-directionally with a computer via a short-range link thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the PCN circuitry taught by Puthuff in the computer of Ditzik for the purpose of enabling remote voice control of said computer as taught by Puthuff.

Regarding Claim 3, Ditzik in view of Puthuff teaches all of the claimed limitations recited in Claim 1. Ditzik further teaches an earpiece (Column 8 lines 25 – 27).

Regarding Claim 5, Ditzik in view of Puthuff teaches all of the claimed limitations recited in Claim 1. Ditzik further teaches air conduction sensor (Column 8 lines 22 – 23, the microphone is the air conduction sensor).

Regarding Claim 10, Ditzik in view of Puthuff teaches all of the claimed limitations recited in Claim 3. Ditzik further teaches air conduction sensor (Column 8 lines 22 – 23, the microphone is the air conduction sensor).

Regarding Claim 11, Ditzik in view of Puthuff teaches all of the claimed limitations recited in Claim 1. Ditzik further teaches wherein the short-range transceiver is disposed within the housing of the computer (Figure 3a, Figure 7, Column 8 lines 14 – 19, Column 8 lines 32 – 35, Column 8 lines 38 – 42, the earset can communicate with the wireless communication means of the computer over a short range thus said wireless communication means comprises a short range transceiver).

Regarding Claim 12, Ditzik in view of Puthuff teaches all of the claimed limitations recited in Claim 10. Ditzik further teaches an antenna electrically connected to the short-range transceiver at least partially extending beyond the housing (Figure 3a, Column 8 lines 14 – 19).

Regarding Claim 13, Ditzik in view of Puthuff teaches all of the claimed limitations recited in Claim 1. Ditzik further teaches a voice transceiver operatively connected to the computer (Figure 3b, Figure 7, Column 8 lines 8 – 11, Column 8 lines 59 – 64, the wireless communication means also comprises a transceiver for voice/data communications over a cellular network thus said wireless communication means will also comprise a voice transceiver for the transmission and reception of voice), the computer adapted to receive voice sound information from the voice transceiver and the computer adapted to send voice sound information to the voice transceiver (Figure 3b, Figure 7, Column 8 lines 8 – 11, Column 8 lines 59 – 64).

Regarding Claim 14, Ditzik in view of Puthuff teaches all of the claimed limitations recited in Claim 13. Ditzik further teaches wherein the voice transceiver is disposed within the housing of the computer (Figure 3b, Figure 7, Column 8 lines 8 – 11, Column 8 lines 59 – 64).

Regarding Claim 15, Ditzik in view of Puthuff teaches all of the claimed limitations recited in Claim 13. Puthuff further teaches an antenna electrically connected to the voice transceiver at least partially extending beyond the housing (Column 2 lines 53 – 57, the PCN, which is the voice transceiver, will have an antenna to enable wireless communication with the earpiece).

Regarding Claim 16, Ditzik in view of Puthuff teaches all of the claimed limitations recited in Claim 13. Ditzik further teaches wherein the short-range transceiver and the voice transceiver are disposed within the housing (Figure 3a, Figure 7, Column 8 lines 14 – 19, Column 8 lines 8 – 11, Column 8 lines 32 – 35, Column 8 lines 38 – 42, Column 8 lines 59 – 64, the earset can communicate with the wireless communication means of the computer over a short range thus said wireless communication means comprises a short range transceiver, the wireless communication means also comprises a transceiver for data/voice communications, thus said wireless communication means will also comprise a voice transceiver for the transmission and reception of voice).

Regarding Claim 17, Ditzik in view of Puthuff teaches all of the claimed limitations recited in Claim 13. Puthuff further teaches wherein the voice transceiver is contained within a removable telephone transceiver module (Column 2 lines 9 – 11,

Column 3 lines 13 – 14, the PCN, which is the voice transceiver, can be attached to and removed from a cellular phone).

Regarding Claim 18, Ditzik in view of Puthuff teaches all of the claimed limitations recited in Claim 17. Ditzik further teaches wherein the removable module is housed within a PC card (Column 4 lines 50 – 53, the PCMCIA card, which houses the wireless communication means, is removable).

Regarding Claim 19, Ditzik in view of Puthuff teaches all of the claimed limitations recited in Claim 1. Ditzik further teaches wherein the short-range transceiver is a removable short-range transceiver module (Column 4 lines 50 – 53, the PCMCIA card, which houses the wireless communication means, which comprises the short – range transceiver and voice transceiver, is removable).

Regarding Claim 20, Ditzik in view of Puthuff teaches all of the claimed limitations recited in Claim 19. Ditzik further teaches wherein the short-range transceiver module is housed within a PC card (Column 4 lines 50 – 53, the PCMCIA card houses the wireless communication means, which comprises the short – range transceiver and voice transceiver).

Regarding Claim 21, Ditzik in view of Puthuff teaches all of the claimed limitations recited in Claim 13. Ditzik further teaches wherein the voice transceiver and the short-range transceiver are housed within a removable module (Column 4 lines 50 – 53, the PCMCIA card, which houses the wireless communication means, which comprises the short – range transceiver and voice transceiver, is removable).

Regarding Claim 22, Ditzik in view of Puthuff teaches all of the claimed limitations recited in Claim 21. Ditzik further teaches wherein the removable module is a PC card (Column 4 lines 50 – 53, the PCMCIA card is a PC card).

Regarding Claim 23, Ditzik in view of Puthuff teaches all of the claimed limitations recited in Claim 13. Ditzik further teaches wherein the short-range transceiver is housed within a removable module and a voice transceiver is electrically connected to the removable module (Column 4 lines 50 – 53, the PCMCIA card houses the wireless communication means, which comprises the short – range transceiver and voice transceiver).

Regarding Claim 24, Ditzik in view of Puthuff teaches all of the claimed limitations recited in Claim 1. Ditzik further teaches wherein the hands-free voice communications unit includes a short-range transceiver (Column 8 lines 22 – 25, Column 8 lines 32 – 35, Column 8 lines 38 – 42, the earset can communicate with the wireless communication means of the computer over a short range).

Regarding Claim 36, Ditzik in view of Puthuff teaches all of the claimed limitations recited in Claim 1. Ditzik further teaches wherein the voice transceiver is adapted for cellular communications (Figure 3b, Figure 7, Column 2 lines 57 – 60).

Regarding Claim 50, Ditzik teaches a system comprising: a computer having a housing (Figure 3a); a short-range transceiver operatively connected to the computer (Figure 3a, Figure 7, Column 8 lines 14 – 19, Column 8 lines 32 – 35, Column 8 lines 38 – 42, the earset can communicate with the wireless communication means of the computer over a short range thus said wireless communication means comprises a

short range transceiver); a voice transceiver operatively connected to the computer (Figure 3b, Figure 7, Column 8 lines 8 – 11, Column 8 lines 59 – 64, the wireless communication means also comprises a transceiver for voice/data communications over a cellular network thus said wireless communication means will also comprise a voice transceiver for the transmission and reception of voice); a hands-free voice communications device unit in communication with the short-range transceiver (Figure 3a, Figure 7, Column 8 lines 25 – 27, Column 8 lines 32 – 35, Column 8 lines 38 – 42, the earset is the hands-free voice communications unit); the computer adapted to receive voice sound information from the voice transceiver; and the computer adapted to send voice sound information to the voice transceiver (Figure 3b, Figure 7, Column 8 lines 8 – 11, Column 8 lines 59 – 64, the wireless communication means also comprises a transceiver for data/voice communications, said wireless communication means along with the microphone and speakers give the computer wireless phone capability).

Ditzik does not specifically teach a computer adapted to receive voice sound information from a short-range transceiver; and the computer adapted to send voice sound information to the short-range transceiver.

Puthuff teaches a computer adapted to receive voice sound information from a short-range transceiver and the computer adapted to send voice sound information to the short-range transceiver (Column 1 lines 51 – 54, Column 2 lines 53 – 57, Column 3 lines 34 – 43, the PCN is the short-range transceiver).

Ditzik and Puthuff both teach an earpiece that communicates bi-directionally with a computer via a short-range link thus it would have been obvious to one of ordinary

skill in the art at the time the invention was made to use the PCN circuitry taught by Puthuff in the computer of Ditzik for the purpose of enabling remote voice control of said computer as taught by Puthuff.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ditzik (5,983,073) in view of Puthuff (6,112,103) as applied to Claim 1 above, and further in view of Eghtesadi et al. (5,982,904).

Regarding Claim 2, Ditzik in view of Puthuff teaches all of the claimed limitations recited in Claim 1. Ditzik in view of Puthuff does not teach a headset.

Eghtesadi teaches a headset (Column 2 lines 45 – 48).

Ditzik in view of Puthuff and Eghtesadi teach a wireless device that enables a user to communicate hands-free thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the headset taught by Eghtesadi as an alternative means for hands-free communication in the system of Ditzik in view of Puthuff.

8. Claims 4, 6, 7 – 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ditzik (5,983,073) in view of Puthuff (6,112,103) as applied to Claims 1, 3 above, and further in view of Konomi (4,588,867).

Regarding Claim 4, Ditzik in view of Puthuff teaches all of the claimed limitations recited in Claim 1. Ditzik in view of Puthuff does not teach a bone conduction sensor.

Konomi teaches a bone conduction sensor (Column 2 lines 37 – 40, Column 3 lines 9 – 16).

Ditzik in view of Puthuff and Konomi teach an ear piece that enables a user to communicate hands-free thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the ear piece taught by Konomi in the system of Ditzik in view of Puthuff for the purpose of reducing noise generated due to external vibrations as taught by Konomi.

Regarding Claim 6, Ditzik in view of Puthuff teaches all of the claimed limitations recited in Claim 1. Ditzik further teaches an air conduction sensor (Column 8 lines 22 – 23, the microphone is the air conduction sensor).

Ditzik in view of Puthuff does not teach an air conduction sensor and a bone conduction sensor.

Konomi teaches a bone conduction sensor (Column 2 lines 37 – 40, Column 3 lines 9 – 16).

Ditzik in view of Puthuff and Konomi teach an ear piece that enables a user to communicate hands-free thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the ear piece taught by Konomi in the system of Ditzik in view of Puthuff for the purpose of reducing noise generated due to external vibrations as taught by Konomi.

Regarding Claim 7, Ditzik in view of Puthuff teaches all of the claimed limitations recited in Claim 3. Ditzik in view of Puthuff does not teach wherein the earpiece is



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smaller in size than an interior of an external auditory canal of a user whereby the earpiece does not block the external auditory canal.

Konomi teaches wherein the earpiece is smaller in size than an interior of an external auditory canal of a user whereby the earpiece does not block the external auditory canal (Column 2 lines 37 – 40, the ear piece is small enough to be inserted into the external auditory canal thus said ear piece will be smaller in size than the interior of said external auditory canal such said ear piece can be inserted).

Ditzik in view of Puthuff and Konomi teach an ear piece that enables a user to communicate hands-free thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the ear piece taught by Konomi in the system of Ditzik in view of Puthuff for the purpose of reducing noise generated due to external vibrations as taught by Konomi.

Regarding Claim 8, Ditzik in view of Puthuff teaches all of the claimed limitations recited in Claim 3. Ditzik in view of Puthuff does not teach a bone conduction sensor.

Konomi teaches a bone conduction sensor (Column 2 lines 37 – 40, Column 3 lines 9 – 16).

Ditzik in view of Puthuff and Konomi teach an ear piece that enables a user to communicate hands-free thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the ear piece taught by Konomi in the system of Ditzik in view of Puthuff for the purpose of reducing noise generated due to external vibrations as taught by Konomi.

Regarding Claim 9, Ditzik in view of Puthuff teaches all of the claimed limitations recited in Claim 3.

Ditzik further teaches an air conduction sensor (Column 8 lines 22 – 23, the microphone is the air conduction sensor).

Ditzik in view of Puthuff does not teach an air conduction sensor and a bone conduction sensor.

Konomi teaches a bone conduction sensor (Column 2 lines 37 – 40, Column 3 lines 9 – 16).

Ditzik in view of Puthuff and Konomi teach an ear piece that enables a user to communicate hands-free thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the ear piece taught by Konomi in the system of Ditzik in view of Puthuff for the purpose of reducing noise generated due to external vibrations as taught by Konomi.

9. Claims 28, 31 – 35, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ditzik (5,983,073) in view of Konomi (4,588,867).

Regarding Claim 28, Ditzik teaches all of the claimed limitations recited in Claim 26. Ditzik does not teach a bone conduction sensor.

Konomi teaches a bone conduction sensor (Column 2 lines 37 – 40, Column 3 lines 9 – 16).

Ditzik and Konomi teach an ear piece that enables a user to communicate hands-free thus it would have been obvious to one of ordinary skill in the art at the time

the invention was made to use the ear piece taught by Konomi in the system of Ditzik for the purpose of reducing noise generated due to external vibrations as taught by Konomi.

Regarding Claim 31, Ditzik teaches a method of voice communication comprising: transducing a signal at an earpiece (Column 8 lines 22 – 27, Column 8 lines 38 – 42, the sound energy will be converted to electrical energy for transmission to the computer); sending the signal to a computer (Figure 7, Column 8 lines 38 – 42); creating a voice sound signal at least partially based on a voice signal at the computer (Figure 3b, Figure 7, Column 8 lines 8 – 11, Column 8 lines 59 – 64, the wireless communication means also comprises a transceiver for data/voice communications, said wireless communication means along with the microphone and speakers give the computer wireless phone capability, thus a user can create a voice sound signal by speaking into the microphone in response to a voice signal received at the computer from the wide area network) transmitting the voice sound signal over a voice communications channel (Column 8 lines 43 – 45, the voice signal transmitted from the earset can be retransmitted to a wide area communications network, such as a PCS network, PCS networks comprise channels that enable the transmission of voice, said channels are voice communication channels)

Ditzik does not teach a bone conduction signal.

Konomi teaches a bone conduction signal (Column 3 lines 9 – 16).

Ditzik and Konomi teach an ear piece that enables a user to communicate hands-free thus it would have been obvious to one of ordinary skill in the art at the time

the invention was made to use the ear piece taught by Konomi in the system of Ditzik for the purpose of reducing noise generated due to external vibrations as taught by Konomi.

Regarding Claim 32, Ditzik in view of Konomi teaches all of the claimed limitations recited in Claim 31. Ditzik further teaches transducing an air conduction signal and wherein the voice sound signal is at least partially based on the air conduction signal (Figure 3b, Figure 7, Column 8 lines 8 – 11, Column 8 lines 59 – 64, the microphone is an air conduction sensor thus when the user speaks into said microphone an air conduction signal will be converted to a voice sound signal).

Regarding Claim 33, Ditzik in view of Konomi teaches all of the claimed limitations recited in Claim 32. Ditzik further teaches wherein the air conduction signal is transduced at an earpiece (Column 8 lines 22 – 27, the earset comprises a microphone, which is an air conduction sensor, thus an air conduction signal will be converted to a voice sound signal when a user speaks into said microphone).

Regarding Claim 34, Ditzik in view of Konomi teaches all of the claimed limitations recited in Claim 32. Ditzik further teaches wherein the air conduction signal is transduced at the computer (Figure 3b, Figure 7, Column 8 lines 8 – 11, Column 8 lines 59 – 64, the microphone is an air conduction sensor thus when the user speaks into said microphone an air conduction signal will be converted to a voice sound signal).

Regarding Claim 35, Ditzik in view of Konomi teaches all of the claimed limitations recited in Claim 33. Ditzik further teaches transducing a second air conduction signal at the computer wherein the voice sound signal is at least partially

based on the second air conduction signal (Figure 3b, Figure 7, Column 8 lines 8 – 11, Column 8 lines 59 – 64, the user at the computer can speak into the microphone a plurality of times thus there will be a second air conduction signal that will be converted to a voice sound signal).

Regarding Claim 42, Ditzik teaches a communications system comprising: a computer (Figure 3a, Figure 7); a short-range transceiver operatively connected to the computer (Figure 3a, Figure 7, Column 8 lines 14 – 19, Column 8 lines 32 – 35, Column 8 lines 38 – 42, the earset can communicate with the wireless communication means of the computer over a short range thus said wireless communication means comprises a short range transceiver); a voice transceiver operatively connected to the computer (Figure 3b, Figure 7, Column 8 lines 8 – 11, Column 8 lines 59 – 64, the wireless communication means also comprises a transceiver for voice/data communications over a cellular network thus said wireless communication means will also comprise a voice transceiver for the transmission and reception of voice); and a hands-free voice communications device having an air conduction sensor in communication with the short-range transceiver (Figure 3a, Figure 7, Column 8 lines 22 – 27, Column 8 lines 32 – 35, Column 8 lines 38 – 42, the earset is the hands-free voice communications unit, the microphone is the air conduction sensor).

Ditzik does not teach a bone conduction sensor.

Konomi teaches a bone conduction sensor (Column 3 lines 9 – 16).

Ditzik and Konomi teach an ear piece that enables a user to communicate hands-free thus it would have been obvious to one of ordinary skill in the art at the time

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the invention was made to use the ear piece taught by Konomi in the system of Ditzik for the purpose of reducing noise generated due to external vibrations as taught by Konomi.

10. Claims 30, 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ditzik (5,983,073) in view of Talmor et al. (5,913,196).

Regarding Claim 30, Ditzik teaches all of the claimed limitations recited in Claim 25. Ditzik does not teach comparing the voice sound information to voice sound information from a known source for security purposes.

Talmor teaches comparing the voice sound information to voice sound information from a known source for security purposes (Column 5 lines 18 – 29, Column 7 lines 53 – 62, Column 8 lines 6 – 9, in order to authenticate the speaker's voice there will be a comparison between the speaker's voice and a known sound).

Ditzik and Talmor teach a computer that receives voice information thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the authentication method taught in Talmor in the computer of Ditzik for the purpose of preventing an unauthorized user of the earpiece from communicating with the computer for further access to the wide area network as taught by Talmor.

Regarding Claim 44, Ditzik teaches all of the claimed limitations recited Claim 43. Ditzik does not teach wherein the identifier is a voice sample.

Talmor teaches an identifier that is a voice sample (Column 5 lines 18 – 29, Column 7 lines 53 – 62, Column 8 lines 6 – 9, in order to authenticate the speaker's voice there will be a voice analysis of the speaker's voice).

Ditzik and Talmor teach a computer that receives voice information thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the authentication method taught in Talmor in the computer of Ditzik for the purpose of preventing an unauthorized user of the earpiece from communicating with the computer for further access to the wide area network as taught by Talmor.

11. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ditzik (5,983,073) in view of Puthuff (6,112,103) as applied to Claim 1 above, and further in view of Ramesh et al. (5,943,324).

Regarding Claim 37, Ditzik in view of Puthuff teaches all of the claimed limitations recited in Claim 1. Ditzik in view of Puthuff does not teach wherein the voice transceiver is adapted for satellite communications.

Ramesh teaches wherein the transceiver is adapted for satellite communications (Column 4 lines 36 – 42).

Ditzik in view of Puthuff and Ramesh teach a mobile computer with the ability to communicate with a wide area network thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the satellite transceiver taught in Ramesh in the mobile computer of Ditzik in view of Puthuff for the purpose of

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enabling the computer to communicate using a satellite network thus creating a more versatile mobile computer.

**Conclusion**

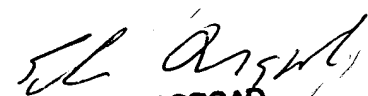
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond S Dean whose telephone number is 703-305-8998. The examiner can normally be reached on 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay A Maung can be reached on 703-308-7745. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Raymond S. Dean  
October 4, 2004



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